RECORD OF DECISION

RECORD OF DECISION NUMBER: 07-0601-200 00107

Certified Mail Receipt #

7005 1820 0003 7190 0302

APPLICANTS NAME & ADDRESS:

Great Salt Lake Minerals 765 North 10500 West Ogden, Utah 84402

ADJACENT LANDOWNERS AND INTEREST IN LAND:

William Colman 232 South 800 East Salt Lake City, Utah 84102

Bureau of Land Management Attention: Jeanette Matovich 440 West 200 South, Suite 500 Salt Lake City, UT 84401

H U Grazing Partnership Attention: Myrna Beth Shipp 2402 West 4700 South Roy, Utah 84607

Young Resources Limited Partnership 4990 North Highway 38 Brigham City, Utah 84302

School and Institutional Trust Lands Attention: Rick Wilcox 675 East 500 South, Suite 500 Salt Lake City, Utah 84102-2818

LEGAL DESCRIPTION OF LANDS DIRECTLY AFFECTED:

Township 7 North, Range 9 West SLBM
Section 19, 29, 30, 32, bed of Great Salt Lake below meander
Township 7 North, Range 10 West, SLBM
Section 2-5, 8-14, 23-25, bed of Great Salt Lake below meander
Township 8 North, Range 10 West, SLBM

Section 7-10, 15-22, 26-30, 32-35, bed of Great Salt Lake below meander <u>Township 8 North, Range 11 West, SLBM</u>
Section 12-13, bed of Great Salt Lake below meander

Bed of Great Salt Lake adjacent to Clyman Bay, 23,088 acres more or less in Box Elder County. (See Exhibit A-1, A-2)

REQUESTED/PROPOSED ACTION

The applicant proposes to lease the above described sovereign land located on the west side of the northwest quadrant (locally referred to as the north arm) of Great Salt Lake to expand mineral operations for Great Salt Lake Minerals, Inc. The proposed action is similar in nature to existing evaporation ponds on adjacent, leased sovereign lands, including the development of dikes, canals and pumping stations. The purpose of the evaporative ponds is to concentrate the brines by evaporating water leaving the residual brines, in this case, to be moved to the east side of the lake for further processing in existing and proposed ponding operations.

RELEVANT FACTUAL BACKGROUND

On May 28, 2007, the applicant submitted a Mineral Lease of Sovereign Land Application 20000106 (Exhibit B), to lease sovereign lands in the bed of Great Salt Lake for an expansion project which includes the construction of new evaporation ponds and associated dikes and pump stations similar in nature, but larger in scope to the existing improvements on the adjacent lease.

The proposed use would involve the development of the property to include construction of evaporation ponds, dikes and pump stations for the extraction of mineral salts from Great Salt Lake. Great Salt Lake Minerals is a long time lessee with leases in the north arm of Great Salt Lake as well as leases in Bear River Bay. The proposed action would utilize the existing Behren's Trench and brine canals to move concentrated brines from the evaporation ponds in the Clyman Bay and Gunnison Bay areas to the processing plant near Little Mountain in Weber County. Great Salt Lake Minerals is the largest producer of Sulfate of Potash (SOP) in North America and they also produce sodium chloride and magnesium chloride. The minerals extracted from the expansion would be used mostly for SOP.

To produce SOP, water from the north arm of Great Salt Lake is pumped to the solar evaporation ponds where the potassium concentration is increased as the water evaporates. The amount of concentration depends on the acreage of evaporation ponds available, weather, and other factors. Generally speaking, there is a concentration of one to three percent in the evaporation ponds on the west side of the lake before pumping the concentrated brine to the east side via the Behren's

Trench and Great Salt Lake Minerals canal system. Transport by this system takes a week to make the twenty-one mile journey. In the east ponds, the brine further concentrates by flowing through a series of ponds that are evaporated by solar energy from May through September.

The potassium concentration of the potassium salts is accomplished by complex phase chemistry, a combination of water addition, heating and cooling, to accomplish this conversion. The SOP plant does not consume or produce any hazardous chemicals and is unique among other SOP facilities worldwide.

The applicant proposes to obtain a 30 year commercial renewable lease for lands below the meander line. The applicant is currently in the process of obtaining the Army Corps of Engineers permit for the subject site in conjunction with lands in Bear River Bay already under lease and other leased lands in Clyman Bay. This permitting process includes an Environmental Impact Statement which will assess impacts to the environment.

CRITERIA/CHECKLIST FOR EVALUATION (CODE, RULE, POLICY, ETC.)

Utah State Constitution

Article XX, Section 1. [Land grants accepted on terms of trust.]

All lands of the State that have been, or may hereafter be granted to the State by Congress, and all lands acquired by gift, grant or devise, from any person or corporation, or that may otherwise be acquired, are hereby accepted, and, except as provided in Section 2 of this Article, are declared to be the public lands of the State; and shall be held in trust for the people, to be disposed of as may be provided by law, for the respective purposes for which they have been or may be granted, donated, devised or otherwise acquired.

Utah Code Annotated

§65A-6-2. Mineral leases -- Division to prescribe rules.

The division shall by rule prescribe:

- (1) the term of the lease;
- (2) the annual rental:
- (3) the amount of royalty in addition to or in lieu of rental; and
- (4) the basis upon which the royalty shall be computed.

Amended by Chapter 294, 1994 General Session.

This section allows the division to promulgate rules for the mineral leasing of state lands.

§65A-2-2. State land management planning procedures for natural and cultural resources -- Assistance from other state agencies -- Division action.

The division:

(1) shall develop planning procedures for natural and cultural resources on state lands; and

(2) may request other state agencies to generate technical data or other management support services for the development and implementation of state land management plans.

Amended by Chapter 294, 1994 General Session.

This section mandates the division to develop a planning process and allows the division to request help from other state agencies to help generate technical data or other management support.

§65A-10-1. Authority of division to manage sovereign lands.

- (1) The division is the management authority for sovereign lands, and may exchange, sell, or lease sovereign lands but only in the quantities and for the purposes as serve the public interest and do not interfere with the public trust.
- (2) Nothing in this section shall be construed as asserting state ownership of the beds of nonnavigable lakes, bays, rivers, or streams.

Amended by Chapter 294, 1994 General Session.

§65A-7-5. Surface leases -- Procedures for issuing leases.

- (1) The division may issue surface leases of state lands for any period up to 99 years.
- (2) This section does not apply to leases for oil and gas, grazing, or mining purposes.
- (3) The division shall disclose any known geologic hazard affecting leased property.
- (4) (a) (i) Surface leases may be entered into by negotiation, public auction, or other public competitive bidding process as determined by rules of the division.
- (ii) Requests for proposals (RFP) on state lands may be offered by the division after public notice.
- (b) (i) A notice of an invitation for bids or a public auction shall, prior to the auction or acceptance of a bid, be published at least once a week for three consecutive weeks in one or more newspapers of general circulation in the county in which the lease is offered.
- (ii) The notice shall be sent, by certified mail, at least 30 days prior to the auction or acceptance of a bid, to each person who owns property adjoining the state lands offered for lease.
- (c) (i) Surface leases entered into through negotiation shall be published in the manner set forth in Subsection (4)(b) 30 days prior to final approval.
- (ii) The notice shall include, at a minimum, a general description of the lands proposed for lease and the type of lease.

Amended by Chapter 10, 1997 General Session

§9-8-307. Report of discovery on state or private lands.

- (1) Any person who discovers any archaeological resources on lands owned or controlled by the state or its subdivisions shall promptly report the discovery to the division.
- (2) Any person who discovers any archaeological resources on privately owned lands shall promptly report the discovery to the division.

(3) Field investigations shall be discouraged except in accordance with this part and Part 4.

(4) Nothing in this section may be construed to authorize any person to survey or excavate for archaeological resources.

Amended by Chapter 170, 1995 General Session

- §9-8-404 Agency responsibilities -- State historic preservation officer to comment on undertaking -- Public Lands Policy Coordinating Office may require joint analysis.
 - (1) (a) Before expending any state funds or approving any undertaking, each agency shall:
- (i) take into account the effect of the expenditure or undertaking on any historic property; and
- (ii) unless exempted by agreement between the agency and the state historic preservation officer, provide the state historic preservation officer with a written evaluation of the expenditure's or undertaking's effect on the historic property.
- (b) Once per month, the state historic preservation officer shall provide the Public Lands Policy Coordinating Office with a list of undertakings on which an agency or federal agency has requested the state historic preservation officer's or the Antiquities Section's advice or consultation.
- (c) The Public Lands Policy Coordinating Office may request the joint analysis described in Subsections (2)(c) and (d) of any proposed undertaking on which the state historic preservation officer or Antiquities Section is providing advice or consultation.
- (2) (a) If the state historic preservation officer does not concur with the agency's written evaluation required by Subsection (1)(a)(ii), the state historic preservation officer shall inform the Public Lands Policy Coordinating Office of any objections.
- (b) The Public Lands Policy Coordinating Office shall review the state historic preservation officer's objections and determine whether or not to initiate the joint analysis established in Subsections (2)(c) and (d).
- (c) If the Public Lands Policy Coordinating Office determines further analysis is necessary, the Public Lands Policy Coordinating Office shall, jointly with the agency and the state historic preservation officer, analyze:
- (i) the cost of the undertaking, excluding costs attributable to the identification, potential recovery, or excavation of historic properties;
 - (ii) the ownership of the land involved;
- (iii) the likelihood of the presence and the nature and type of historical properties that may be affected by the expenditure or undertaking; and
- (iv) clear and distinct alternatives for the identification, recovery, or excavation of historic properties, including ways to maximize the amount of information recovered and report that information at current standards of scientific rigor.
- (d) The Public Lands Policy Coordinating Office, the agency, and the state historic preservation officer shall also consider as part of the joint analysis:

(i) the estimated costs of the alternatives in Subsection (2)(c)(iv) in total and as a percentage of the total cost of the undertaking; and

- (ii) at least one plan for the identification, recovery, or excavation of historic properties that does not substantially increase the cost of the proposed undertaking.
- (3) (a) (i) If the state historic preservation officer concurs with the agency's evaluation or if the Public Lands Policy Coordinating Office determines that the joint analysis is unnecessary, the state historic preservation officer shall, no later than 30 calendar days after receiving the agency's evaluation, provide formal comments on the agency's evaluation.
- (ii) If a joint analysis is conducted, the state historic preservation officer shall provide formal comments on the agency's evaluation no later than 30 calendar days after the conclusion
- of the joint analysis.
- (b) The state historic preservation officer shall ensure that the comments include the results of any joint analysis conducted under Subsection (2).
- (c) If a joint analysis is not conducted, the state historic preservation officer's comments may include advice about ways to maximize the amount of historic, scientific, archaeological, anthropological, and educational information recovered, in addition to the physical recovery of specimens and the reporting of archaeological information at current standards of scientific rigor.
- (4) (a) Once per month, the state historic preservation officer shall provide the Public Lands Policy Coordinating Office with a list of comments the state historic preservation officer intends to make or has made as required or authorized by the National Historic Preservation Act, 16 U.S.C. Sec. 470 et seq.
- (b) At the request of the Public Lands Policy Coordinating Office, the state historic preservation officer shall discuss the comments with the Public Lands Policy Coordinating Office.

Rules Governing the Management of State Lands and Forestry, & Fire Control

R652-2-200. Sovereign Land Management Objectives

The State of Utah recognizes and declares that the beds of navigable waters within the state are owned by the state and are among this basic resources of the state, and that there exists, and has existed since statehood, a public trust over and upon the beds of these waters. It is also recognized that the public health, interest, safety, and welfare require that all uses on, beneath, or above the beds of navigable lakes and streams of the state be regulated, so that the protection of navigation, fish and wildlife habitat, aquatic beauty, public recreation, and water quality will be given due consideration and balanced against the navigational or economic necessity or justification for, or benefit to be derived from, any proposed use.

R652-3-200. Applicant Qualifications.

Any person qualified to do business in the state of Utah, and is not in default under the laws of the state of Utah, relative to qualification to do business within the state, or not in default on any previous obligation with the division, shall be a qualified applicant for lease or permit.

R652-3-300. Application Forms.

Application for the purchase, exchange, or use of sovereign lands or resources, shall be on forms provided by the division or exact copies of division forms.

R652-3-400. Application Processing.

Until a division executed instrument of conveyance, lease, permit or right is delivered or mailed to the successful applicant, applications for the purchase, exchange, or use of sovereign lands or resources shall not convey or vest the applicant with any rights. All applications for lease, sale, or exchange shall be subject to cancellation by the division prior to execution if in the best interest of the beneficiaries of that land. Applications shall be processed in accordance with the applicable rules in effect at the time the application was accepted except that the division may apply rule changes that become effective during the processing of an application if the application of the rule change is in the best interest of the beneficiary of the land. If the applicant objects to compliance with changes in the rules, then the applicant may elect to withdraw the application. For applications which are withdrawn or cancelled under this section 400, all fees shall be refunded to the applicant without penalty.

R652-9-300. The Petition.

The petition shall state:

- 1. the statute, rule, or policy with which the division action is alleged to be inconsistent;
- 2. the nature of the inconsistency of the division action with the statute, rule, or policy;
- 3. the action the petitioner feels would be consistent under the circumstances with statute, rule, or policy; and
- 4. the injury realized by the party that is specific to the party arising from division action. If the injury identified by the petition is not peculiar to the petitioner as a result of the division action, the director will decline to undertake consistency review.

R652-9-400. Filing Procedure.

- 1. The petition shall be submitted to the director of the Division of Forestry, Fire and State Lands. The petition must be received at the director's office within 20 calendar days of the date the record of decision was mailed as evidenced by the certified mail posting receipt (Postal Service Form 3800).
- 2. The director shall review the petition form as soon as reasonably possible to assure completeness and, upon determination that the petition is complete, shall promptly forward the petition to the executive director.
 - 3. Incomplete petitions shall be returned with written notice of the deficiencies in the

petition. If an incomplete petition is not completed and resubmitted within ten working days of the mailing of notice of incompleteness to the petitioner, the petition will be denied.

4. Upon receipt of a petition, the director shall suspend division actions with respect to the matter for which consistency review is being sought by the petitioner.

R652-20-1600. Posting Dates/Simultaneous Filing.

Notices of the offering of lands for simultaneous filing will run for 15 working days and are posted at times to insure that all bid openings are on the last Monday of that month.

R652-20-2200. Lease Provisions.

In order to affect the purposes of development of mineral resources owned by the state of Utah, the following provision, terms and conditions shall apply to all mineral lessees/leases:

- 1. Preference Rights for Unleased Minerals--Any state mineral lessee who discovers any minerals on lands leased from the state of Utah which are not included within his lease shall have a preference right to a state mineral lease covering these unleased minerals, provided the unleased minerals at the time of discovery are not included within a mineral lease or mineral lease application of another party. The preference right lease is issued upon a lease form in current use by the state of Utah. The preference right lease is subject to the rental, royalty, and development requirements as provided in the lease form. The preference right shall not extend to any unleased minerals on state lands which have been withdrawn from mineral leasing. The preference right shall continue for a period of 60 days after the discovery of unleased minerals, provided the applicant notifies the division within the ten days after the discovery and makes application to lease the unleased minerals within 60 days after the date of discovery.
- 2. Lease Term Exclusion--If drilling operations are being diligently pursued on the leased premises at the end of the term, including any valid extension of any oil and gas lease, the term of the lease shall automatically extend for a term of two additional years. Upon written application by lessee and satisfactory showing of due diligence in prosecution of drilling operations, an extension rider is issued by the division. Application for extension rider shall be filed by the lessee within 30 days prior to expiration of the fixed term of any valid extension of the lease.
- 3. Cultural, Paleontological, and Biological Resources--The division may require the lessee to: a. provide a cultural, paleontological or biological survey on lands under mineral lease; and
 - b. be responsible for reasonable mitigative actions as specified by the division. Surveys conducted in performance for another state or federal agency may be submitted to the division when the survey is also required by the division.
- 4. Geologic Data--Lessee or operator shall keep a log of geologic data accumulated or acquired by lessee within the land area described in the lease. This log shall show the formations

encountered and any other geologic information reasonably required by lessor and shall be available upon request by the division. A copy of the log, as well as any data related to exploration drill holes, shall be deposited with the division upon termination of the lease.

- 5. Assignments, Subleases and Overriding Royalties
 - a. Definitions
 - i. A total assignment is an assignment of undivided total interest.
 - ii. An interest assignment is an assignment of any working interest less than the undivided total, except overriding royalty interests.
 - iii. A partial assignment is an assignment of part of the lands in a lease and a segregation of the assigned lands into a separate lease.
 - b. Any mineral lease may be assigned or subleased as to all or part of the acreage, to any person, firm, association, or corporation qualified to hold a state lease, provided, however, that all assignments and subleases are approved by the division. No assignment or sublease is effective until approval is given. Any assignment or sublease made without approval is void.
 - c. Unless otherwise authorized by the division, an assignment of a portion of a lease covering less than a quarter-quarter section, a surveyed lot, an assignment of a separate zone, or a separate deposit is not approved.
 - d. An assignment or sublease shall take effect the first day of the month following the approval of the assignment or sublease by the division. The assignor or sublessor or surety, if any, shall continue to be responsible for performance of any and all obligations as if no assignment or sublease had been executed until the effective date of the assignment or sublease. After the effective date of any assignment of sublease, the assignee or sublessee is bound by the terms of the lease to the same extent as if the assignee or sublessee were the original lessee, any conditions in the assignment to the contrary notwithstanding.
 - e. A partial assignment of any lease shall segregate the assigned or retained portions thereof and, after the effective date, release or discharge the assignor from any obligation thereafter accruing with respect to the assigned lands. Segregated leases shall continue in full force and effect for the primary term of the original lease or as further extended pursuant to the terms of the lease.
 - f. An assignment or transfer of a lease, interest herein, or of an overriding royalty must be a good and sufficient legal instrument, properly executed and acknowledged, and should clearly set forth the serial number of the lease, the land involved, and the name and address of the assignee, and the interest transferred.
 - g. An assignment must affect or concern only one lease or a portion thereof, except for good cause shown.
 - h. Any assignment which would create a cumulative overriding royalty in excess of the production royalty payable to the state as landowner of the state mineral lease will not be approved by the division. Any agreement to create or any assignment creating

overriding royalties or payments out of production removed or sold from the leased lands is subject to the division, after notice and hearing, to require the proper parties thereto to suspend or modify the royalties or payments out of production in such a manner as may be reasonable when and during such period of time as they may constitute any undue economic burden upon the reasonable operations of this lease.

- i. Assignment instructions are as follows:
 - i. Prepare and execute the assignments in duplicate, complete with acknowledgments.
 - ii. Each copy of the assignment shall have attached thereto an acceptance of assignment duly executed by the assignee.
 - iii. All assignments forwarded to or deposited with the division must be accompanied by the prescribed fee.
- 6. Lease Amendments--When the division approves the amendment of existing mineral leases by substituting a new lease form for the existing form(s), the amended lease will retain the effective date of the original lease.

R652-20-2300. Lessee Rights.

Mineral exploration, oil and gas drilling, or other operations which disturb the surface of lands contained within or above state mineral lease lands require surface rehabilitation of the disturbed area as approved by the division, and as required by the laws administered by the Utah Division of Oil, Gas and Mining.

R652-20-3100. Great Salt Lake - Salt and Other Mineral Resources.

- 1. Salts and other minerals in the waters of Great Salt Lake are reserved to the state and shall be sold only upon a royalty basis and under the terms and provisions as specified in the royalty agreement as herein provided for in this rule and all other terms and conditions as the division deems necessary in the best interest of the state.
- 2. The term "salts and other minerals" as used in this rule shall include all salts and other minerals contained in solution or suspension in the waters of Great Salt Lake, and shall not include salts or other minerals that have precipitated out or have settled on the bottom of the lake.
- 3. Royalty agreement applications shall be made upon forms provided by the division and shall be in accordance with the laws and rules governing applicant qualifications, application and lease form.
- 4. Royalty agreements for salts and other minerals contained in waters of Great Salt Lake, shall require the following advance royalty payment which may be applied against royalties which may thereafter accrue during the same calendar year for which the advance royalty is paid.
 - a. \$10,000 per annum for all royalty agreements in which the lessee therein also obtains a lease of land within Great Salt Lake.
 - b. \$5,000 per annum for all royalty agreements in which the lessee therein does not

obtain a surface or mineral lease of state lands within Great Salt Lake.

- c. Royalty agreements for sodium chloride salts shall require on or before January 1st of each year, an advance royalty of not less than \$1,000, which sum may be applied against royalties which may thereafter accrue during the same calendar year for which the advance royalty is paid.
- 5. Royalties shall be paid upon a calendar year basis. The minimum royalty for the balance of the calendar-year in which the agreement is executed shall be prorated in proportion to the time remaining.
- 6. The gross market value of the products shipped, upon which the royalty payments are to be paid, shall not include amounts expended for bags, boxes, receptacles, or other costs directly related to or necessary in the shipping of any product.
- 7. Royalty agreements shall contain provisions necessary to effect the purpose of this rule, including: the rights of the vendee; the term of the royalty agreement; annual rental and royalties; rights reserved to the vendor; bonds; reporting of technical data; operation requirements; vendees consent to suit in any dispute arising under the terms of the royalty agreement or as a result of operations carried on under the royalty agreement; procedures for notification; transfers of interest by vendee; establishment of water rights and water usage; discovery of other minerals; terms and conditions of royalty agreement forfeiture; protection of the state from liability from all actions of the vendee; and all other provisions that the division deems necessary to protect the interest of the state and to fulfill the purpose of this rule.

R652-20-3200. Mineral Salts Leases Within Great Salt Lake.

- Mineral leases for mineral salts on land within Great Salt Lake, shall be issued pursuant to the
 provisions of this rule, and other applicable laws and rules governing the issuance of mineral
 leases on state owned lands or mineral resources.
- 2. Definitions: The term "state land within Great Salt Lake", as used in this section, shall include all state lands lying within the exterior boundary lines of the meander-line around the lake as surveyed by the United States. The term "salts", as used in this section, shall mean, chlorides, sulphates, carbonates, boratex, silicates, oxides, nitrates and associated minerals existing at the surface and to the extent of their continuous depth, but shall not include the salts and other minerals contained in solution or suspension in the waters of Great Salt Lake as defined in R652-20-3100.
- 3. All mineral lessees granted a mineral salts lease under this section must have a royalty agreement as provided under R640-20-3100. This royalty agreement shall be a minimum royalty of \$10,000.
- 4. Leases issued pursuant to this rule shall grant the lessee the right to mine, extract, or remove salts from the surface of the lands covered thereby, together with the right to use so much of the surface as is necessary for all purposes incident to the extraction of salts and other minerals from brines of Great Salt Lake or the surface of the lands covered by the lease.

- 5. These leases shall provide a rental of \$1 per acre per annum and shall be coterminous with R652-20-3100. Ten years after date of issuance, the rental thereunder shall increase from \$1 per acre to \$2 per acre per annum.
- 6. Leases issued pursuant to this rule shall contain provisions necessary to affect the purpose of this rule, including, the following provisions: the rights of the lessee; the term of the lease; annual rental and royalties; rights reserved to the lessor; bonds; reporting of technical data; operation requirements; lessees consent to suit in any dispute arising under the terms of this lease or as a result of operations carried on under this lease; procedures for notification; transfers of interest by lessee; establishment of water rights and water usage; discovery of other minerals; terms and conditions of lease forfeiture; protection of the state from liability from all actions of the lessee; and all other provisions that the division deems necessary to protect the interest of the state and to fulfill the purpose of this rule.

R652-30-400. Lease Rates.

- 1. The division shall receive at least fair market value for surface leases. Fair market value of the subject property shall be determined by the division based upon a market analysis including:
 - (a) the income-producing ability of the highest and best use of the property; and
 - (b) a market study of comparable values of similar properties.
- 2. Lease rates shall be based on fair market value. Lease rates may be determined by the division by:
- (a) multiplying the fair market value of the subject property by the current division-determined interest rate.
- (b) comparable lease data which may include percentage rent based on either net or gross income with a guaranteed minimum.
- (c) using either a fixed rate per acre or a crop-share formula for agricultural leases providing that the rental rate is customary and reasonable. The division may require the lessee to acquire adequate crop insurance.
- 3. The division may periodically establish minimum lease rates for special use leases based on the costs incurred in administering the leases, and a desired minimum rate of return.
 - 4. Rental Review Procedures for Special Use Leases
 - (a) Standard
- i) Base rentals shall be adjusted as of the effective date specified in the respective lease through a lease review conducted by the division. Any lease which is reviewed within one year of the effective date specified in the lease shall be deemed to have been reviewed timely and any adjustment in base rentals shall be as of the effective date.
- ii) Adjustments in base rentals may be based upon changes in the market value, changes in established indices, or other methods which may be appropriate and in the best interest of the beneficiaries. The determination of which method to use may be based upon an analysis of the cost effectiveness of performing the review.
 - iii) When using established indices, the rate of adjustment shall be the sum of the indices

established for the years involved in the review period, unless the rate of adjustment exceeds a maximum adjustment rate, or fails to reach a minimum rate of adjustment as specified in the respective lease. If no maximum adjustment rate or minimum rate of increase is specified in the lease, then the percent change will increase or decrease according to the above described rate of adjustment.

- iv) The index/indices used by the division shall reflect the percent of change to be required in the base rental of applicable leases. The index/indices may be amended at any time during the first quarter of the calendar year using information from any or all of the following sources:
- (A) Changes in assessed value for the most current year for the appropriate category of land as published by the State Tax Commission
 - (B) The applicable component of the CPI-U
 - (C) The applicable Implicit Price Deflators for the Gross National Product
 - (D) Data from market analyses of comparable leases
 - (E) Public comment
 - v) A separate index shall be established for each of the following lease types:
 - (A) Commercial/industrial
 - (B) Residential
 - (C) Agricultural
 - (D) Recreational
- vi) For the purpose of this rule, the Military, Telecommunications, and Governmental lease types shall be adjusted using the Industrial Index.
- vii) The adjusted rental amount as determined pursuant to this rule shall be rounded to the nearest number evenly divisible by \$10.
 - (b) Unit Development

Rental adjustments for unit development leases shall be based upon changes in the market value of the property or the applicable index as may be appropriate as determined by the division.

(c) Suspension, Deferral, and Waiver of Lease Rental Adjustment

The director may suspend, defer, or waive the adjustment of base rentals in specific instances when justified by natural disasters or periods of economic crises, based on a written finding that the suspension, deferral, or waiver is in the best interest of the beneficiaries.

R652-70-100. Authority.

This rule provides for the management and classification of the surface of sovereign lands in Utah, which include but are not limited to, the beds of Bear Lake, the Great Salt Lake, Utah Lake, the Jordan River, and the summer channel of the Bear River, and portions of the beds of the Green and Colorado Rivers. Should any other lakes or streams be declared navigable by the courts, the beds of such lakes or streams would fall under the authority of these rules. It also provides for the issuance of special use leases, general permits and easements on sovereign lands and the procedures and fees necessary to obtain these rights of use. This rule implements Article XX of the Utah Constitution, and Section 65A-10-1.

R652-90-200.	Sco	pe.
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This rule sets forth the planning procedures for natural and cultural resources on sovereign land as required by law. These procedures establish comprehensive land-management policies using multiple-use, sustained-yield principles in order to make the interest of the beneficiary paramount. Management plans shall guide the implementation of stated management objectives, and provide direction for land-use decisions and activities on sovereign lands. One or more of the following plans, as defined in R652-1-200, shall be implemented pursuant to 65A-2-2:

- (1) Comprehensive management plans;
- (2) Site-specific plans;
- (3) Resource plans.

R652-90-1200. Environmental Assessments.

- 1. The RDCC process provides an environmental assessment for purposes of sovereign land management. The public may comment on proposed sovereign land uses through the RDCC and other public notification processes.
- 2. Any additional environmental impact analysis shall be at the director's discretion based on a written determination that additional evaluation is consistent with division duties.

Great Salt Comprehensive Management Plan¹

Record of Decision Issue 7.1

The zones and policies of the 1996 Mineral Leasing Plan (MLP) address the concerns expressed in public comment. Action taken by the Wildlife Board under alternative A in issues 5.1 and 6.1, and site-specific planning may lead to revisions of the MLP.

Record of Decision Issue 7.2

The zones and policies of the MLP address the concerns expressed in public comments.

Great Salt Lake Mineral Leasing Plan²

Management Direction: Establish mineral leasing procedures for areas with high mineral potential

1	, 2000. Great Salt Lake Comprehensive Management Plan and Decision
Document. G	reat Salt Lake Planning Team, Utah Department of Natural Resources. Record of
Decision, pa	ge 7.

²_____, 1996. Great Salt Lake Mineral Leasing Plan. Division of Sovereign Lands and Forestry. Page 47.

• Establish a leasing process for mineral salts from brines or evaporation pond sites as follows:

- 1. All lands on Great Salt Lake will remain withdrawn from mineral salt leasing until nominated for lease.
- 2. Lands in mineral salt leasing categories 1, 2, and 3 as identified in Map XII (See Exhibit A) will be offered for competitive lease following nomination by interested parties. [Division of Forestry, Fire and State Lands] can adjust or specify minimum acreage to efficiently lease the resource.
- 3. At the time of nomination, lands will be evaluated for conformance with the mineral leasing plan. Evaluation will include appropriate tract size, appropriate royalty, leasing instrument, minimum bid, and consultation with appropriate agencies to work out restrictions or stipulations as necessary. Nominated tracts will be offered on simultaneous listing after a three week notification period on the last Monday of the month. Any lease stipulations will be advertised in the competitive bid process. Primary term will be for five to ten years depending on location of lands and proximity to existing evaporation ponds. Benchmarks defining due diligence for holding the lease beyond the primary term will be defined by specific actions in the lease terms offered during the competitive process.
- 4. [Division of Forestry, Fire and State Lands] may reject an application if the [Division of Forestry, Fire and State Lands] considers the royalty rate under the applicant's existing royalty agreement to be out-of-date and contrary to the public interest.

EVALUATION OF FACTS

Public Trust Analysis

The Public Trust Doctrine has been, and will continue to be, flexible to accommodate changing demands for public trust resources. There is no hierarchy or priority of uses protected under the doctrine. When there are competing public benefits, the Division must review these benefits and determine which best preserve the public trust under the circumstances should be given a higher priority. The Utah Legislature has assigned responsibility for management of sovereign lands, including Great Salt Lake, to the Division of Forestry, Fire and State Lands. [§65A-10-1 Authority of division to manage sovereign lands.] As trustee, the Division must strive for an appropriate balance among compatible and competing uses specified in statute while ensuring that uses protected under the Public Trust Doctrine have primacy. It remains desirable to provide the option of adjusting the allocation of public trust resources in response to changes in demand and changes in administrative and legislative policy.³

R652-2-200 requires the division to 1) regulate uses on the lake so that navigation, fish and wildlife habitat, aquatic beauty, public recreation, and water quality are given *due consideration*, and 2)

3	. 1996.	Great Salt	Lake Comprehensive	Management Pla	n. Page 11

balance the economic necessity or justification for, or benefit derived from any proposed use against the protection of navigation, fish and wildlife habitat, aquatic beauty, public recreation and water quality as part of its Public Trust responsibilities. The Public Trust corpus includes all the navigable waters, the land beneath these waters, and the living resources (the fish and aquatic plant and animal life) inhabiting these lands and waters. The beneficiaries of the Public Trust include the public as a whole.

Protection of navigation, fish and wildlife habitat, aquatic beauty, public recreation and water quality has been given due consideration through the preparation of the Mineral Leasing Plan, the Comprehensive Management Plan, the Resource Development Coordination Committee (RDCC) process and through the Record of Decision process (including expert consultation, site visit, and analyses).

As part of the Record of Decision process, and to better appreciate the components of the Public Trust Doctrine that may be at risk, the Division toured the site on June 13, 2007. While there, informal interviews (conducted by Division employees) with the workers there garnered some information on wildlife use of the area. Additionally, observations were made on the site in the context of the impacts of the development on the protected components of the trust. Some observations made on the tour are as follows and support the conclusions made in this Record of Decision:

- 1. On the causeway, the contrast between use of the north arm of Great Salt Lake as opposed to the use of south arm by sea gulls and ducks was striking. The south arm had a great deal of usage, and there was no use observed north of the causeway except at the breach.
- 2. On the twelve miles or so of the trip on the causeway, no birds were seen floating on the north arm except at the causeway breach. There gulls were observed floating in the water where the south arm water spilled into the north arm water (See Exhibit G).
- 3. There was observed bird usage on the dikes and also on the existing evaporation ponds in the north arm (See Exhibit G).
- 4. The on-site manager for Great Salt Lake Minerals, indicated that foxes, coyotes, badgers, and other animals use the dikes and were looking for mice, lizards and other smaller animals.
- 5. Because of the curvature of the earth, the existing dikes could not be seen unless they were three to four miles or closer to the observation point.
- 6. The area is in a remote part of the state. No other members of the public were using the lake, and according to the on-site manager, there was very little use of the north arm of the lake from his vantage point. Boating access is restricted; the only boat launch facility in the north arm requires access through a locked gate. Canoes, kayaks and other small craft were not observed in the north either.
- 7. The area due east of the existing ponds is flat and devoid of water and vegetation, making it conducive for the proposed diking and shallow ponds.

These observations and the information obtained from individuals who work the area year round, confirm the Division's analysis that public usage of the north arm of the lake is minimal, sporadic, restricted and limited. Particularly the west side of the north arm is isolated, shallow and difficult to reach, further limiting the public's access. Little, if any bird use is known or observed and recreation is virtually negligible.

The applicant estimates the royalties from this proposal will generate \$2 million annually to the state with the associated economic multiplier effects to the local economies in the form of jobs, plus services required for those jobs like medical, retail and housing. The economic benefits, although substantial, still must be balanced against the protection of navigation, fish and wildlife habitat, aquatic beauty, public recreation and water quality.

It is the determination of the Division that the economic benefit of the proposed use, weighed against the public uses (which are very few), as analyzed in this Record of Decision process, substantiates and supports the conclusion that the applicant's proposal provides a higher and better use with no substantial impairment to the public uses. The resources of the body of the trust itself, likewise, are not significantly impaired.

Administrative Analysis

The Division of Forestry, Fire and State Lands has the authority by statute to prescribe rules and develop plans for the lands that it manages (including minerals) under Article XX of the Utah State Constitution. Rules have been promulgated for the leasing of minerals including salts from Great Salt Lake. Planning efforts establishing the management direction have been written and implemented in the Great Salt Lake Comprehensive Management Plan (March 2000) and the Great Salt Lake Mineral Leasing Plan (June 1996).

By rule [R652-90-200], multiple-use, sustained-yield principles policies guide the management of sovereign lands. Management plans provide direction for land-use decisions and activities on sovereign lands. To accomplish this, the Division has implemented two planning efforts although only one is required. Additionally, the RDCC process allows agencies and the public, opportunities to provide site specific information for proposals. The resource plan, titled the Great Salt Lake Mineral Leasing Plan, was approved in 1996. The Great Salt Lake Comprehensive Management Plan was approved in 2000. Both planning efforts involved the public as part of the process. An integral part of the comprehensive management plan process was to revisit the Mineral Leasing Plan to ensure that its objectives are consistent with the comprehensive plan. There has been nothing to suggest that measures protecting wildlife, aesthetic, recreational, and other values were insufficiently addressed in the Great Salt Lake Mineral Leasing Plan. The Record of Decision of the Great Salt Lake Comprehensive Management Plan reaffirmed the policies, procedures, and management direction

contained in the Mineral Leasing Plan.⁴ The Division exceeded the requirement of the rule by implementing the resource plan (Mineral Lease Plan) as well as implementing the comprehensive management plan. The Division utilizes an additional public process (Resource Development Coordinating Committee) to notify agencies and the public of proposed actions in order to solicit comments and suggestions for proposed leasing or other projects on state lands. After receiving input from both agencies of government and the public, analysis by the Division has determined that the relevance and applicability of the plans are still valid.

Section 65A-10-1, Utah Code Annotated, authorizes the Division of Forestry, Fire and State Lands to be the management authority for sovereign lands. The Division shall manage lands within the State of Utah pursuant to R652-70-100 [Utah Administrative Code as amended, enacted 1991] which identifies Great Salt Lake as one of the sovereign land areas to be managed.

The lands in the bed of Great Salt Lake have been withdrawn from new leasing until interest is expressed in potential development for mineral leasing.⁵ The interest in mineral development was expressed by Great Salt Lake Minerals Corporation a subsidiary of Compass Minerals Company who nominated the lands on February 20, 2007 by letter (See Exhibit D - Correspondence). The purpose stated in the nomination was to expand their solar evaporation operations and subsequent mineral extraction which is consistent with their current operations.

Investigations into whether the nomination and proposed development comforms to the Great Salt Lake Comprehensive Management Plan were then made. In the Record of Decision for the Great Salt Lake Comprehensive Management Plan the policies for mineral leasing in Great Salt Lake were tiered to the Great Salt Lake Mineral Leasing Plan.⁶ The rationale for the selected alternative identified known oil fields and potential ponding sites (including the proposed site) for leasing as well as sites not suitable for leasing including important recreation and wildlife areas. This allows for both the protection of identified resources and the use of appropriate areas for extraction of brine, minerals, chemicals and petrochemicals to be adopted as encouraged by legislative policy.⁷

⁴______, 2000. Great Salt Lake Comprehensive Management Plan. Record of Decision, page 7.

5 ______, 1996. Great Salt Lake Mineral Leasing Plan. Page 47.

6 ______, 2000. Great Salt Lake Comprehensive Management Plan and Decision Document. Record of Decision, page 7.

⁷ <u>Ibid.</u>, page 19.

The Great Salt Lake Mineral Leasing Plan outlined management locations and direction for mineral leasing within the plan. The Great Salt Lake Mineral Leasing Plan (and Great Salt Lake Comprehensive Management Plan) designates areas open for leasing and describes other lands as well that have sensitivities and use conflicts which need addressing. These areas are mapped and designated into categories describing the leasing potential, conflicts and stipulations associated with these mapped areas. Using Map XII in the GSL Mineral Leasing Plan (see Exhibit A-3), the nominated lands fall within the category: Category 1- Open, which is described as areas with "no significant resource conflicts identified. Open to hydrocarbon or mineral salt leasing with standard lease stipulations for Great Salt Lake environments." Further management criteria that needs to be considered includes the size of the tract, appropriate royalty, leasing instrument, minimum bid and consultation with appropriate agencies to work out restrictions or stipulations as necessary. Each will be addressed separately below.

- Size of Tract. Because of the nature of mineral extraction from the water of Great Salt Lake, a large acreage is necessary for the removal of brines. This was affirmed in an exemption made in rule from the 2560 acre maximum, to allow for the larger acreage for mineral salt leases within Great Salt Lake [R652-20-3100].
- **Appropriate Royalty.** Division policy allows for a single royalty agreement to cover multiple leases. ¹⁰ The applicant already has a royalty agreement in place with the Division (ML 19024) and an amendment will be executed that will cover the additional mineral lease [R652-20-2200 (6)].
- Leasing Instrument. A mineral lease will be used to convey interest in the land for the extraction of brines. This allows the Division to reserve ownership interest in keeping with its Public Trust obligations¹¹, retain regulatory authority over sovereign lands[R652-2-200]¹², protect the state's mineral estate, and grants the lessee permission (with stipulations) to extract minerals from sovereign lands.[§65A-6-2, UCA]
- **Minimum Bid.** By rule the minimum bid for the nominated land is designated at one dollar per acre (\$1/acre), and will rise to two dollars per acre (\$2/acre) following the term of the lease, if renewed [R652-20-3200 (5)].

 ⁸ _______, 1996. Great Salt Lake Mineral Leasing Plan. Page 42.
 9 <u>Ibid</u>.. Page 47.
 10 <u>Ibid</u>. Page 37.
 11 _______, 2000. Great Salt Lake Comprehensive Management Plan and Decision Document. Great Salt Lake Planning Team, Utah Department of Natural Resources. Page 11.

¹²Utah Administrative Code. R652-2-200. Rules Governing the Management of State Lands and Forestry, & Fire Control Activities. Enacted 1991.

• Consultation with Appropriate Agencies. Under R652-90-1200 the Resource Development Coordination Committee (RDCC) process serves as an environmental assessment for purposes of sovereign land management. The nomination was submitted to the Resource Development Coordinating Committee (RDCC) on April 2, 2007. The proposed project was posted on the RDCC Project Management System, and a presentation was made at the regularly scheduled meeting on April 8, 2007 (See Exhibit C for meeting notes). Comments were received by the Division of Wildlife Resources, the U.S. Fish and Wildlife Service, and Western Resource Advocates (representing Audubon Council of Utah, et. al). See Exhibit E for comments received. Exhibit F contains responses to the comments. Comments received after the public comment period ended, received no response but are included in Exhibit E.

Recognizing the state's obligation to the public trust resources, a sealed bid process was implemented to solicit the best return for the trust. Following the RDCC process a bid was prepared and released using a mailing list of existing salt producers (See Exhibit C). Because of the limited pool of potential bidders, notice was also set up on the Division's web site and a public notice was prepared and published on May 10th, May 17th and May 25th 2007 in the Salt Lake Tribune and the Deseret Morning News (See Exhibit C) to satisfy notification requirements in statute [§65A-7- 5 (4)(b), UCA].

The announcement to solicit bids was made on May 3, 2007 opening the bidding window. The closing date for sealed bids was May 25, 2007 at 5:00 PM running for 22 consecutive days (16 business days) [R652-20-1600]. The bids were opened at 10:00 AM on May 29, 2007 in the Salt Lake office of the Division of Forestry, Fire and State Lands by Dave Grierson and witnessed by Jennifer Wiglama, both on the staff of the Division. One bid was received, from the nominator, Great Salt Lake Minerals (See Exhibit B). The bid included:

- 1. The application
- 2. A check for \$30.00 for the application fee
- 3. The bonus bid in the amount of \$50,000.00

The applicant is qualified to do business in the state of Utah, and is not in default under the laws of the state of Utah, relative to qualifications to do business within the state [pursuant to R652-3-200]. As of the date of this Record of Decision, Great Salt Lake Minerals is a for-profit corporation in good standing with the state (Business Entity # 601787-0143, Utah Department of Commerce - See Exhibit B). This application will remain in application status until an executed lease instrument is delivered or mailed to the applicant [R652-3-400].

It is acknowledged that public comments suggest an inextricable link in Great Salt Lake Mineral's overall plan to also expand evaporative ponds and install new dikes in the Bear River Bay area of the Great Salt Lake Minerals operations. It was argued this link was just a part of the overall expansion plan, could not be severed from the plan and therefore, analysis of the Bear River Bay expansion should be done in conjunction with the Clyman Bay Record of Decision. The Division rejects this

claim for two reasons. First, the Bear River Bay leases with the state have been in place for nearly thirty years, duly executed and recorded for the purposes of mineral salt extraction. Second, the Division concurs with what the general manager of Great Salt Lake Minerals indicated both in writing and in the public meetings, namely, that there is no inextricable link between the two areas (Exhibit D). One project can go forward without the other and neither is dependent on the other. Both projects still need to clear environmental analysis required by the United States Army Corps of Engineers before any permits are issued that affect the waters of the United States. The permitting process by the Army Corps of Engineers is a the appropriate venue for analysis in Bear River Bay.

Resource Analysis - Geologic

No fault lines were located within 10 miles of the proposed site. Within a ten mile radius of the proposed site, there are 222 seismic events recorded, but none were located within the proposed site itself. The greatest recorded epicenter was a magnitude 2.9 earthquake on the Richter Scale. [See Map: "Modern Epicenters," Exhibit A-4]. Because of the remoteness of the site, hazards were deemed not significant, with a breached dike being a "worst case scenario." The water retained in the dikes is simply water pumped from the north arm of the lake. Any breach of the dike would simply allow the waters to mix again. In that case, risk would be minimal to humans, and property damage would be limited to the dikes. The danger to the public would be fairly insignificant. ¹³ Investigations into landslide or avalanche activities yielded no hazards. ¹⁴

Resource Analysis - Hydrology and Water Quality

A search for known springs was made from the State Geographic Information Database. No springs were found at the proposed site, nor were any springs found on the shoreline near the proposed site from upland locations. No permanent or intermittent streams were located at or near the proposed site. (See Exhibit A-10) No jurisdictional wetlands as defined by the U.S. Army Corps of Engineers are associated with the site. With the exception of Great Salt Lake itself, no other water features appear to be impacted by the implementation of the expansion project. This conclusion is based on the proximity of known water sources at or near the proposed site. Based on a lack of water sources, the environmental impacts to waters other than Great Salt Lake should be minimal. The effects to the waters of Great Salt Lake itself should be the same as other evaporation ponds in other areas of the lake. The GSL Comprehensive Management Plan indicates that the effects to the waters of Great Salt Lake are acceptable within the guidelines of the plan.

¹³Personal conservation with Kimm Harty, Deputy Director, Utah Geologic Survey, May 2007.

¹⁴State Geographic Information Database. Automated Geographic Reference Center. Utah Department of Information Technology. http://agrc.utah.gov/

¹⁵ Ibid.

The Utah Division of Water Quality made no comments on the proposed expansion project. Therefore, impacts elsewhere on the lake in similar evaporation ponds were examined from a water quality perspective. Great Salt Lake has its own category of beneficial use and is protected for primary and secondary contact, recreation, aquatic wildlife and mineral extraction. Numerical standards for pollutants are lacking for Great Salt Lake although a standard for selenium (in the open water) is being developed and should be in place by the fall of 2007. Total mercury has been measured in the north arm in 2006 at the causeway culverts and results showed 22.4 nanograms per liter (ng/l) at the west culvert and 21.5 ng/l at the east culvert. Testing for the more dangerous and bioaccumulative methylmercury (CH₃Hg) has not been done on the water, although no elevated organic mercury has yet been found in the wildlife of the north arm of Great Salt Lake. Other impacts to water quality should be no different than the impacts already seen on the lake from other impoundments from the mineral extraction industry, and impoundments from water control and water level projects in the various wildlife management areas, duck clubs and other diking and water control activities on Great Salt Lake.

Once water is put inside the solar evaporation ponds and evaporated, its chemistry changes as sodium chloride and other salts are precipitated. Generally, the types of salts that are precipitated depends on the degree of evaporation and the movement of brines that are permitted to take place.¹⁷ In the case of Clyman Bay, the brines are concentrated two to three percent before being pumped to the Behren's Trench for transfer to east side of the lake. The changes that take place within the solar ponds have no effect on the chemistry outside of the dike and within the lake. However, bitterns (residue of magnesium and other salts) are discharged from the solar ponds back into the lake by flushing the evaporative ponds once a year. The volumes of these bitterns regardless of their composition will be very small in comparison to the water that was initially pumped into the ponds, and will have a negligible effect on the north arm's overall chemistry.¹⁸ Nothing is added nor subtracted from the water during the operations of the evaporative ponds that would change the water quality.

Resource Analysis - Wildlife

Wildlife impacts generated the most comments both from an agency perspective and from the public. (See Exhibit E). The United States Fish and Wildlife Service (FWS) raised concerns on migratory birds especially the American white pelican which uses Gunnison Island seasonally as a rookery. The Great Salt Lake Mineral Leasing Plan only showed the island as a seasonal area of concern, and a mile buffer was deemed to provide adequate protection (See Exhibit A-7). Both the FWS and the

¹⁶Utah's 2006 Integrated Report Volume II - 303(d) List of Impaired Waters. 2006. Department of Environmental Quality, Division of Water Quality. Page II 11.

¹⁷Gwynn, J. Wallace, PhD. Utah Geological Survey. Personal communication. June 2007.

¹⁸Ibid.

Utah Division of Wildlife Resources (DWR) have apprehension about the impact of nearby human activity on nesting American white pelican most specifically, nest abandonment and predation. Neither DWR nor FWS have produced evidence of what human activities results in abandoned pelican nests. There have been documented evidence of nest abandonment in South Dakota, Montana, and even Utah (Hat Island, Great Salt Lake in the 1960's). However linkages to human activities have been speculated but not established. There are photographs of the nesting pelicans on Gunnison Island prior to 1980 taken by photographer Gerald Hatch, who was on the island for the picture (See Exhibit G). Apparently, this human disturbance did not result in the abandonment of the island as it is still in use today. In the case of Hat Island in Great Salt Lake, unsubstantiated reports of hunting and nest scavenging by humans could have led to the abandonment. The CMP indicated a one mile buffer around Gunnison Island as sufficient to exclude human activities and to keep the pelican colony whole during the nesting season. The proposed lease site exceeds the one mile buffer by more than another mile and the proposed dike site is yet another mile beyond that. Other species of concern raised by public comments (specifically snowy plover and avocet) have not been observed at the site. Pedestrian wildlife transects have noted no shorebird use anywhere within the proposed project area. including the shoreline extending up to Dolphin Island. No avian use was noted within the project area. 19 Further surveys are scheduled, biweekly throughout June.

It is probable that the lake level will again rise to the point that brine shrimp will inhabit the north arm, changing the dynamics of the lake. As in the past, it is expected that the bird populations will adapt accordingly as they have in past decades. The long term history of the lake level indicates that the north arm will be too salty to support much of a brine shrimp population most of the time.²⁰ During high lake level years, there may be a couple of consecutive years where a substantial brine shrimp population can survive, but the normal salinity level in the north arm kills most of the brine shrimp in the winter months. In addition, at high lake levels the dikes of the evaporative ponds will be inundated and there will be a single body of water between the lake and the ponds.

Resource Analysis - Diking

The Division recognizes the concern over diking. This was mentioned in the Record of Decision in the GSL Comprehensive Management Plan, as well as in the Mineral Leasing Plan. The purpose of the dike is to impound water in an evaporative pond. This pond will have a surface area of about 18,000 acres. Great Salt Lake Minerals general manager indicated fill material for the dikes will come

¹⁹ Personal email from Blaise Chanson, Bio-west, Inc., performing preliminary studies for the EIS required by the Army Corps of Engineers. See Exhibit D.

²⁰Austin, Lloyd. Lake Level Predictions of the Great Salt Lake. *In:* Great Salt Lake a Scientific, Historic and Economic Overview. J. Wallace Gwynn, editor. Utah Geological and Mineral Survey Bulletin 116. June 1980.

from a private quarry at Strong's Knob. This will minimize the surface disturbance of sediments on the bed of Great Salt Lake, as opposed to using on-site material to create the dike. Additionally, the lakeward side of the dike will roughly follow the 4195 foot elevation meaning the dike construction will take place in a maximum of one foot of water. The height of the dikes should not exceed five feet at its deepest encroachment of the lake.

During low water years, including the 1980's and the early 2000's many millions of tons of salt have been precipitated onto the floor of the north arm. This is a natural occurrence under very low water conditions and the sheer tonnages, greatly overshadows any changes that may be made through the operation of current and/or future solar pond operations.²¹ During high water years, the water levels will be higher than the dike and the lake and the ponds will become one body of water. The proposed diking system will not remove any shoreline from the west side of the lake. The current seven miles of interface between land and water will still be there regardless of whether or not there is a dike. If anything, there will be a more consistent water level at this interface.

The affects of diking on the access to the sensitive wildlife areas have not been quantified. While it certainly makes it easier for predators to get closer to the sensitive Gunnison Island, there is still several miles of extremely salty water that needs to be negotiated by coyotes, foxes or badgers before they reach the island and the sensitive American white pelican. There is no evidence to support that predatory mammals will swim the briny water. Predatory birds can certainly choose to fly to the island with or without the dikes in place. No off-site impacts of the proposed diking are foreseen on the public trust resources.

The state has complied with diking policy. The diking policy acknowledges the general effects of diking on lake dynamics and precludes blanket denial of diking proposals. Instead, the policy requires that a specific assessment of each diking proposal be completed prior to diking plan implementation.²² The Division has completed a specific assessment for the proposed Clyman Bay diking project through the preparation of this Record of Decision process, further supported by responses to public comments. There has been no evidence surfaced that indicates the proposed diking substantially impairs any component of the public trust.

Resource Analysis - Cultural Resources

Lake levels of Great Salt Lake fluctuate seasonally and annually. This results in the periodic inundation of lands below the meander. The proposed evaporation ponds would cover an elevational range of about 4192 to 4200 feet above sea level. Historical and climatological analysis shows the

²¹Gwynn, J. Wallace, PhD. Utah Geological Survey. Personal communication. June 2007.

^{, 2000.} Great Salt Lake Comprehensive Management Plan and Decision Document. Page 79, 32-33.

probability of the area that the proposed evaporation ponds would be inundated at any given time would be about .98 (98%) at the 4192 foot level and .30 (30%) at the 4200 foot level.²³ There are no known archeological sites at the proposed evaporation ponds, but stipulations in the lease will require notification of the State Historic Preservation Officer if there are any sites or specimens found, pursuant to §9-8-307, Utah Code Annotated. No known historic sites nor historical districts are located on the proposed site.²⁴ A letter received by the Deputy State Historic Preservation Officer (See Exhibit D) indicated agreement to the division's analysis (pursuant to UCA §9-8-404) that no sites or specimens are located on the proposed site and that no sites or specimens are expected to be found there.

Resource Analysis - Other

Other resources required by rule [R652-2-200] that need to be protected include recreation and aquatic beauty. From the Great Salt Lake Mineral Leasing Plan, recreational values are limited in the Clyman Bay area. The closest public access is at Lakeside to the south, (which gives access to the south arm), Little Valley Harbor to the east, and Locomotive Springs on the far north tip of the north arm. There were no navigation values identified in the north arm, and hunting opportunities were only identified near Locomotive Springs (See Exhibit A-8). Because of the remoteness and access issues, recreation in the area is almost non-existent. Access by boat requires either a boat launch or a shore launch. The only available boat launch in the north arm is at Little Valley Harbor which is also remote, and has restricted access because of locked gates. Shore launching is possible from about anywhere on the lake but access is remote and historical usage has been extremely rare in the area. The extreme shallowness of the lake (1 foot drop every 2 miles) at the proposed site would make usage more dependent on lake level, than on the public access or the presence or absence of dikes.

Effects on aquatic beauty is difficult to identify tangibly. It is recognized that the development of dikes will change the landscape somewhat, but to what degree is based on each individual. During the tour by the Division on June 13, 2007, it was evident that there was greater use by the wildlife at or near the dikes than on the shoreline of the lake, which would make the experience with dikes *more* interesting to some. The remoteness of the area means very few people are inclined to travel the distances to view the west side of the lake, and brave the elements (including wind, insects and temperatures which can be extreme) required for the viewshed. The dikes from other areas of the lake are not visible because of the curvature of the earth and their relatively short height so there is no impact from places like Promontory Point, or Monument Point. The visual impact from Lakeside is

²³Austin, Lloyd. 1980. Lake Level Predictions of the Great Salt Lake, In, Great Salt Lake, a Scientific, Historical and Economic Overview, J. Wallace Gwynn, editor. Utah Geological and Mineral Survey Bulletin 116.

²⁴State Geographic Information Database, Utah Department of Technology Services, Automated Geographic Resource Center. SGID.024.HistoricSites, SGID.024.HistoricDistricts.

relatively minor, especially since the more interesting views of wildlife occur more to the southeast. Regardless, of whether or not the view negatively impacts an individual, the number of individuals impacted is still very small.

CONCLUSION/ACTION

By statute, the division is the management authority for sovereign lands, and may lease sovereign lands for the purposes as serve the public interest and do not interfere with the public trust.²⁵ It is determined by the Division that the non-economic, public uses of the trust will not be substantially impaired and that the proposed use brings economic benefit to the public. The Division also determines that the impacts to resources (aquatic plants and wildlife, water quality, scenic beauty, geology, and cultural resources) of the public trust are not substantially impaired. Further, it is the determination of the Division that the nomination and application processes used followed procedural guidelines as outlined in statute, rule, policy, Great Salt Lake Comprehensive Management Plan and the Great Salt Lake Mineral Leasing Plan. The Division exceeded minimum requirements in the planning, analysis, notification of public, public comments, and response to public comments. The decision of the Division is to grant a mineral lease.

A mineral lease (200 00107) will be issued to Great Salt Lake Minerals, Inc., for a period of 10 years beginning August 1, 2007 with an annual rental charge of \$1.00 per acre per year or \$23, 088, and would increase to \$2 per acre per year following the term of the lease if renewed. A lease review will be conducted at the end of the first three years and every third year thereafter, based on R652-30-400. Stipulations in the lease agreement will be made for discovery of a site or specimen in accordance with Utah Code Annotated §9-8-304. Other standard stipulations will be in place for the leasing period including due diligence, bonding, insurance and other language included in the Division standard leases. The lease will expire on September 1, 2017 unless renewed according to the terms and conditions in the lease. The existing royalty agreement will be amended so that royalties from the new lease will be included in the royalty calculations.

ADMINISTRATIVE APPEALS

Parties having an interest in this action may file a petition for administrative review of the Division pursuant to R652-9-300 and R652-9-400. Said petition must be in writing and shall contain:

- 1. The statute, rule, or policy with which the division action is alleged to be inconsistent;
- 2. The nature of the inconsistency of the division action with the statute, rule, or policy;

²⁵Utah Code Annotated, §65A-10-1.

3. The action petitioner feels would be consistent under the circumstances with statute, rule, or policy; and;

4. The injury realized by the party that is specific to the party arising from the division action. If the injury identified by the petition is not peculiar to the petitioner as a result of the division action, the director will decline to undertake consistency review.

Said petition must be received by the division by 5:00 p.m. on July 23, 2007.

Prepared By:

David Grierson

Sovereign Lands Coordinator

Date: 7/2/07

Approved By?

Richard J. Buehler

Director/State Forester

Division of Forestry, Fire and State Lands

Date:

LIST OF EXHIBITS

D.	CORRESPONDENCE
E.	PUBLIC COMMENT
F.	RESPONSE TO PUBLIC COMMENT
G.	PHOTOGRAPHS

APPLICATION MATERIAL

C. PUBLIC NOTIFICATION

A. MAPS

B.